

3. Improvements to AM and FM Band Made  
Possible by the Allocation of a  
New HDR band at 578-596 MHz

25. The proposed policies and procedures to govern the licensing of HDR stations (see pp30-42, infra) will allow the Commission to engage in meaningful improvement of the existing AM and FM bands by reducing the number of licensed AM and Class "A" FM stations through a "sunset" provision.

26. Radio New Jersey proposes that the AM and Class "A" FM licenses of operators utilizing the new HDR band be deleted after a five-year period, during which the new HDR service will have become viable. Operators choosing to retain their AM or FM after the trial period would have to relinquish the HDR license. Deleted AM & FM stations could not be applied for pursuant to a prohibition on licensing. New daytime stations and Class "A" FM stations would not be licensed. See AM Report, pp. 70-71.

27. There are substantial public interest benefits to such a proposal in terms of a potential for improving AM quality. The number of AM stations now occupying the standard broadcast band could be reduced by over 50% if the new HDR band is implemented and most of the eligible stations construct HDR facilities. It is estimated that 57% of all AM stations (and 32% of all radio stations) are daytimers. See NAB RadioActive, November 1986, p.6. <sup>7/</sup> Too, approximately 50% of all commercial FM stations are Class "A".

<sup>7/</sup> Many of the 2400 daytime-only stations stand to gain some full-time operation as a result of the recent Canadian and Mexican agreements. See NAB RadioActive, November 1986, p. 17 (Interview with Wilson LaFollette, Assistant Chief, Policy and Rules Division, Mass Media Bureau)

28. Some of the more important public interest benefits that can be achieved through the reduction in AM stations can be summarized as follows:

1. Fulltime regional facilities subject to a lower level of skywave interference during the PSRA and PSSA periods;
2. Clear channel stations subject to lower levels of cumulative skywave interference to the 0.1 mV/m groundwave contour during critical hours and the 0.5 mV/m skywave contour during nighttime hours;
3. Reduced splatter and interference from adjacent channel stations which currently limit the size of the service area;
4. Implementation of power increases or pattern changes to improve service to suburban communities not considered in the original antenna system design;
5. Modification of existing antenna systems to increase radiation in deep null areas to improve audio quality and stereo performance.

29. These benefits will enhance the audio quality of full-time AM stations, creating stronger, cleaner-sounding stations and making the AM band more competitive. The remaining FM stations would now be able to increase power by reallocating the bands channels. Minimum FM power throughout the country could be 50 KW.

B. The Public Interest Would Best Be Served By Limiting Use of the HDR Band During a Five-Year Developmental Period.

1. Eligibility Considerations

30. Radio New Jersey's proposal is designed to "sunset" the poor service problems of daytime-only, selected other AM radio stations, and Class "A" FM's in the United States by ultimately transferring these operators to the new HDR band. The public interest behind the proposal, in part, is to provide relief to stations in accordance with the Commission's stated policy of expanding daytimer hours. Therefore, Radio New Jersey proposes that initially only existing stand-alone daytimer station operators be first to apply for the new HDR service.<sup>8/</sup>

31. An open window period of 90 days would be announced during which all eligible daytimers desiring to operate an HDR station would be required to file an expression of interest accompanied by a site map showing the location of the proposed HDR tower site. The Commission would then place all of the proposed site locations in a data base, determine the channel of operation for each interested daytimer, and issue an initial Table of Assignments. By proceeding in this fashion, maximum channel efficiency can be achieved and the chances for quick and efficient implementation of new transmission facilities will be greatly enhanced.

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<sup>8/</sup> Owners of daytime AM/FM combinations would not be permitted to have both stations participate in the HDR service. Alternatively, the owner could sell the daytimer to a new owner who would then be eligible for HDR operation.

32. The Commission would simultaneously issue construction permit authorizations to stations that had expressed an interest, using their specified coordinates with 50 KW ERP and 150 meters HAAT. Daytimers would have 60 days to review the authorization and advise the Commission of any errors and/or of their desire to operate with less than the maximum facilities.

33. Once this daytimer channel selection process has been completed, the Commission would repeat the process for all interested share time and limited time stations as well as Class IV stations with power levels of 250 watts or less during nighttime hours.

34. After completion of the selection process for the second group, a third run will be made for full-time AM stations with inferior nighttime facilities (such as stations with a night limit equal to or greater than 20 mV/m based on the procedures described in Section 73.182 of the Rules).

35. Thereafter, only Class "A" FM applicants, and members of the first three groups that had missed their relevant deadline would be eligible to request assignment of available HDR frequencies.

36. By so limiting the eligibility criteria, the Commission would be fostering several important allocation objectives. First, the Commission would be authorizing nighttime, full power, service for daytime operators, thereby providing many communities with a first local nighttime transmission service. Second, the Commission would be reversing the process whereby urban centers dominate a particular band. The HDR frequencies would be developed by operators of daytime, low power AM stations, and class A FM's that are generally located in expansive and often developing rural areas, but are operating with inferior technical facilities due to early assignments in urban areas (e.g., clear channel authorizations). Thus the HDR service would have a positive effect on millions of daytime, low power full-time AM and Class "A" FM listeners. 9/ The 50 kw operations on the HDR band would continue to provide quality audio service even after rural areas grow in terms of population and/or become parts of MSAs.

37. Third, educational and noncommercial entities could now be given an opportunity to operate on the FM band and they could be interspersed throughout the band instead of being limited to one end of the band (as is the case in the present FM service). Moreover, the current situation in the many areas where there are no available frequencies on the 88-91 MHz band would be alleviated.

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9/ In 1983, the Daytime Broadcasters Association estimated that daytimers served 46 million people.

## 2. Developmental Period

38. Radio New Jersey is confident that the benefits of the HDR service will become apparent as soon as sufficient numbers of operators and receiver manufacturers take advantage of the spectrum. However, it is anticipated that a five-year developmental period may be necessary to fully establish the viability of the new band. For that reason, Radio New Jersey proposes that stations be permitted to operate both their AM, Class "A" FM and HDR stations during a five-year developmental period.

39. Once the developmental period has expired, HDR operators would be given an option of retaining either their original or their HDR station. Because a primary reason for establishing the HDR service is to reduce the number of stations on the over-crowded bands, and the under-coverage of Class "A" FM's, there would be no exceptions to this policy.

40. Radio New Jersey expects that the vast majority of operators would relinquish their original facilities. The forfeited facilities would go dark permanently. Radio New Jersey suggests that the prohibition be extended to any forfeited daytime, share time, limited time, Class IV with low night power, class A FM and inferior nighttime, AM and FM station.

41. After the option period lapses (Radio New Jersey proposes a 90-day option period), remaining stations would be permitted to apply for improvements in their facilities made

possible by the deletion of a large number of AM and Class "A" FM stations.<sup>10/</sup>

42. Because the HDR operators would have to give up their original or HDR station, the net effect of Radio New Jersey's proposal would have no impact on the number of commercial radio stations in the United States.

### C. Spectrum Considerations

43. Domestically, the 578-596 MHz band is part of the vast UHF television radio spectrum above 220 MHz.

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<sup>10/</sup> Indeed, the Commission might consider offering, at the end of the five-year developmental period, to permit access to the HDR band for as many AM stations as possible if those stations agree to abandon their AM facility before commencing HDR program tests.

44. Internationally, the 578-596 MHz band is assigned to the Fixed, Mobile, and Broadcasting services in Region 1. In Region 2 the frequencies are assigned to television. In Region 3 the band is assigned to the Fixed, Mobile, Broadcasting, Aeronautical Navigation, and Radiolocation services.

Id

45. Recognizing that the proposed HDR band is used for television broadcasting purposes in Region 2, Radio New Jersey stands ready to fully cooperate with the Commission in securing approval for radio broadcasting use in Region 2. Moreover, should the Commission believe that the suggested frequency band is inappropriate for resolving the problems faced by daytimers and others, Radio New Jersey looks forward to working with the Commission to select alternative spectrum to reallocate to the HDR service.

46. In this regard, Radio New Jersey respectfully submits that the Commission's efforts in providing daytimer preferences in FM comparative hearings involving the daytimer's community of license and allocating the 1605-1750 KHz band to AM broadcasting are of only marginal utility in alleviating the problems faced by daytimers.

47. The daytimer preference is available only in those instances where a Docket 80-90 or new FM frequency is allocated to the community of license of the daytimer. For many daytimers, therefore, no preference is available. WRNJ is but one example, there being no FM assignments in Hackettstown and no present possibility for such an assignment.

48. Even where a preference is available, it is very possible that the daytimer will either not be able to afford a comparative hearing or will still lose out to another applicant. In most Docket 80-90 proceedings there are at least 10 applicants, notwithstanding the presence of a daytimer in the community. Indeed, in many cases, Docket 80-90 will mean only increased competition, not daytimer relief.

49. Expansion of the AM band's upper end will also provide only limited relief, if any. It is well known that the propagation characteristics of the upper end of the AM band render it less desirable for broadcasting purposes than the lower frequencies in the band. Daytimer relief through expansion of the AM band at the upper end will perpetuate the inferior technical status of those broadcasters.

50. Such expansion will also ignore the growing evidence that the AM band, as is, is only marginally suitable for broadcasting purposes. As the Commission staff has noted, several factors contribute to the degradation of AM service, including:

naturally occurring atmospheric noise; co-channel and adjacent channel interference from other AM stations; and man-made noise (unwanted emissions from transmitters operating outside of the AM band, restricted radiation devices, incidental radiation devices, ISM equipment, etc.) See AM Report, pp. 32-34.

51. Instead of exacerbating an already deteriorating situation, the Commission should move to ease, and possibly eliminate, the problem by adopting and developing Radio New Jersey's proposed HDR service.

### III. Conclusion

52. This petition for rulemaking demonstrates that the public interest requires the consideration in a notice and comment proceeding of AM and Class "A" FM relief and the potential elimination of AM and FM quality problems through: (1) the shared use of the 578-596 MHz band to a new HDR service; and (2) the establishment of policies and procedures to insure that the licensing of HDR stations relieves those stations that most need help -- daytimers, sharetimers, limited timers, low-power Class IVs, Class A FM's and educational/noncommercial stations. All of this is accomplished by using only 5% of the vast UHF TV spectrum.

53. This petition demonstrates both in law and in fact the public interest in establishing an HDR service. The Communications Act and Commission policy speak directly to the need to efficiently allocate hours of operation and power among the nation's communities. The HDR service advances this mandate efficiently and effectively.

54. Finally, the facts set forth in this proposal clearly establish that expedited processing of this rulemaking is essential. Radio New Jersey is mindful of the Commission's heavy workload, but it is confident that support from the private industry will be available to help the Commission push for the sharing of the 578-596 MHz band, considering the special public and private benefits that can be achieved.

55. Radio New Jersey looks forward to assisting the Commission by establishing a developmental prototype to serve as an example of the exemplary service that can be provided to the public. Moreover, Radio New Jersey believes that its proposal assists the Commission in the ongoing challenge to make useful, rapid, and efficient services and advanced technology available to all Americans.

Respectfully submitted,

RADIO NEW JERSEY

(Lawrence J. Tighe, Jr.--President)